

CLAIMS

1. An electric stapler comprising:

a feed mechanism for sequentially feeding a staple from a magazine loaded with a plurality of staples to a striking portion;

a striking mechanism for striking the staple, that is fed to the striking portion, toward sheets of paper by a driver plate;

a clincher mechanism for bending a staple leg struck by the driver plate and penetrated through the sheets of paper, along a backside of the sheets of paper;

a drive mechanism for driving at least one of the feed mechanism, the striking mechanism and the clincher mechanism by at least one electric motor;

a detection mechanism that contacts with rotary member provided in the drive mechanism and detects a consumed amount of the drive mechanism; and

an indicator mechanism for indicating a consumed amount detected by the detection mechanism.

2. The electric stapler according to claim 1, wherein the detection mechanism is urged onto the rotary member.

3. The electric stapler according to claim 1, wherein the indicator mechanism further comprises:

a pointer that contacts with the detection mechanism and indicates a displacement from an initial contact position with the detection mechanism at a start of using the electric stapler, and

5 a scale for indicating a consumed amount of the drive mechanism cooperatively with the pointer.

4. The electric stapler according to claim 1, wherein the pointer is provided in a visible location externally of the
10 electric stapler.

5. The electric stapler according to claim 1, wherein the detection mechanism comprises:

a rod vertically movable with respect to the rotary
15 member, and

an urging member for urging the rod toward the rotary member and putting the rod in contact with an outer surface of the rotary member, and

wherein at least one of the rotary member and the rod
20 is formed of a soft material softer than a material of the other, and

the indicator mechanism indicates a wear amount of the soft material.

6. The electric stapler according to claim 5, wherein the rod is formed of the soft material at and a vicinity of a contact region with the rotary member.
- 5 7. The electric stapler according to claim 5, wherein the rod is formed of a material softer than the outer surface of the rotary member, and
- a cutout is formed in a part of an outer peripheral surface of the rotary shaft, wherein the surface contacts with the
- 10 rod.
8. The electric stapler according to claim 5, wherein the detection mechanism further comprises:
- a radius increased zone provided at a tip of the rotary
- 15 member and formed of a material softer than the rod.
9. The electric stapler according to claim 1, wherein the rotary member is a rotary part of the electric motor,
- the detection mechanism comprises a brush of the electric
- 20 motor, and
- the indicator mechanism comprises an actuator having a first end to be displaced due to a wear of the brush and a second end made as a pointer end to indicate the displacement.
- 25 10. The electric stapler according to claim 9, wherein, the indicator mechanism further

arranges the pointer end visibly from an outer surface of the electric motor, and

indicates a limit mark, on the outer surface of the electric motor, correspondingly to a position of the pointer end when
5 the brush displaces up to an endurance limit along a direction of displacement of the pointer end.

11. An electric stapler according to claim 9, wherein the indicator mechanism further comprises an elastic piece for
10 urging the brush in a direction of drive shaft of the motor, and

the indicator mechanism further comprises a spring rotatively urging the first end of the actuator in a direction contacting with a backside of the elastic piece.

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